Author Index of Volume 52

Addo-Yobo, F., 371 Aitken, M.D., 349 Aouabed, H., 137 Aracil, J., 371

Bader, J., 213 Baldi, G., 79 Barresi, A.A., 79 Bellgardt, K.-H., 213 Boudrant, J., 335

Carrasco-Marín, F., 37 Casillas, J.L., 371 Chen, L.F., 229 Chen, Z.D., 51 Comiti, J., 63 Converti, A., 221

Deckwer, W.-D., 49 Del Borghi, M., 221

Favre, E., 1 Fernandez Lozano, J.A., 89 Ferraiolo, G., 221

Hwang, S.-J., 131

Kekos, D., 201 Koyanagi, T., 99 Krishna, R., 19 Łącki, H., 13 Legentilhomme, P., 137 Legrand, J., 63, 137 Lesecq, P., 73 Lin, H., 229 Liu, C.-B., 131 Lu, W.-J., 131

Mackley, M.R., 107
Marchetti, A., 41
Markas, G., 201
Martinez, M., 371
Maruyama, T., 99
Masiuk, S., 13
Mazzarino, I., 79
Modak, J.M., 359
Montillet, A., 63
Moreno-Castilla, C., 37
Mosrati, R., 335

Nancib, N., 335 Netušil, J., 9 Ni, X., 107

Panduranga Rao, S., 19 Panja, N.C., 121 Papayannakos, N., 201 Péringer, P., 1 Phaneswara Rao, D., 121 Prasad, D.H.L., 31

Rajiah, A., 31 Rieger, F., 9 Rivera-Utrilla, J., 37

Saxena, S.C., 51 Schügerl, K., 213 Shankar, V., 115 Sinha, A.S.K., 115 Stockar, U.v., 1 Suh, I.-S., 49

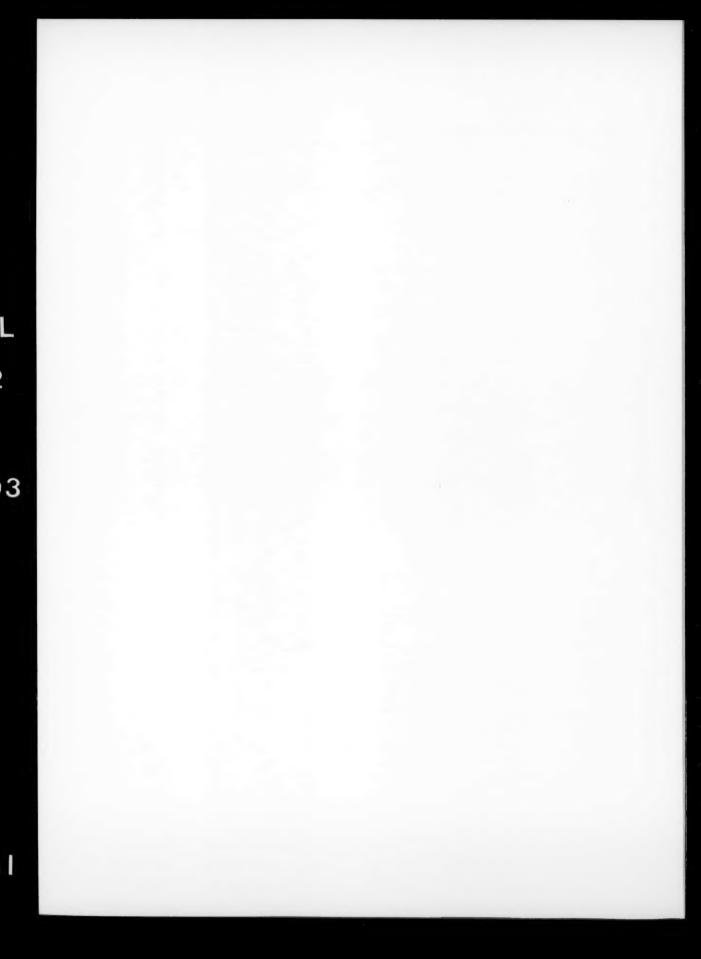
Tagliazucchi, M., 41 Tassi, L., 41 Tosi, G., 41 Tsai, F.-N., 55

Utrera-Hidalgo, E., 37

Vanni, M., 79 Vetere, A., 93 Vittal Prasad, T.E., 31 Voumard, P., 1

White, D.A., 73

Yan, Z., 229 Yau, J.-S., 55



Subject Index of Volume 52

Activated carbons

removal of tannic acid from aqueous solutions by activated carbons, 37

Adsorption

removal of tannic acid from aqueous solutions by activated carbons, 37

modelling of the adsorption of Cephalosporin C on modified resins in a stirred tank, 371

Anaerobic treatment

influence of organic loading rate on the anaerobic treatment of high strength semisynthetic waste waters in a biological fluidized bed, 221

Annular cells

developing mass transfer for annular swirling decaying flow induced by means of a tangential inlet, 137 Aqueous solutions

removal of tannic acid from aqueous solutions by activated carbons, 37

Aspergillus niger

studies on modelling and simulation of lactose hydrolysis by free and immobilized β -galactosidase from Aspergillus niger, 201

Axial dispersion

axial dispersion in liquid flow through packed reticulated metallic foams and fixed beds of different structures, 63

Batch fermentation

modelling of batch fermentation of a recombinant

Escherichia coli producing glyceraldehyde-3-phosphate
dehydrogenase on a complex selective medium, 335

Batch reaction

chemical reaction in batch pulsatile flow and stirred tank reactors, 107

Binary mixtures

kinematic viscosities of binary mixtures of 1,2-ethanediol and 2-methoxyethanol at different temperatures, 41

Bubble columns comment on studies on the heat transfer in slurry bubble columns, 49

reply to "Comment on studies on the heat transfer in slurry bubble columns", 51

Capacitance probe

a capacitance probe to characterize gas bubbles in stirred tank reactors, 1

Carbon dioxide

solubilities of carbon dioxide in normal paraffins, 55 inactivation of *Leuconostoc dextranicum* with carbon dioxide under pressure, 229

Catalyst

characterization and activity of cobalt oxide catalysts for total oxidation of hydrocarbons, 115

Catalytic afterburners

catalytic afterburners with not fully developed flow: modelling and experimental performances, 79

Cephalosporin C

modelling of the adsorption of Cephalosporin C on modified resins in a stirred tank, 371 Chemical reaction

chemical reaction in batch pulsatile flow and stirred tank reactors, 107

Complex enzyme mixtures

modelling and simulation of the enzymatic hydrolysis of potato pulp by a complex enzyme mixture, 213

Complex selective medium

modelling of batch fermentation of a recombinant Escherichia coli producing glyceraldehyde-3-phosphate dehydrogenase on a complex selective medium, 335 Control variables

choice of control variable for optimization of fed-batch fermentation, 359

Enthalpy

the prediction of pure component properties in the subcritical range using an equation of state, 93

Enzymatic hydrolysis

modelling and simulation of the enzymatic hydrolysis of potato pulp by a complex enzyme mixture, 213

Enzymes

waste treatment applications of enzymes: opportunities and obstacles, 349

Equations of state

solubilities of carbon dioxide in normal paraffins, 55 the prediction of pure component properties in the subcritical range using an equation of state, 93 Escherichia coli

modelling of batch fermentation of a recombinant Escherichia coli producing glyceraldehyde-3-phosphate dehydrogenase on a complex selective medium, 335

1,2-Ethanediol

kinematic viscosities of binary mixtures of 1,2-ethanediol and 2-methoxyethanol at different temperatures, 41

production of potassium sulphate-magnesium sulphate double salt and magnesium-chloride-rich solution from seawater bitterns, 89

Fed-batch fermentation

choice of control variable for optimization of fed-batch fermentation, 359

Film models

film model for mass transfer in non-ideal multicomponent fluid mixtures, 19

Fixed beds

axial dispersion in liquid flow through packed reticulated metallic foams and fixed beds of different structures, 63

Fluidized bed reactor

influence of organic loading rate on the anaerobic treatment of high strength semisynthetic waste waters in a biological fluidized bed, 221

Fluidized beds

comment on studies on the heat transfer in slurry bubble columns, 49

reply to "Comment on studies on the heat transfer in slurry bubble columns", 51

slugging fluidized beds in tapered vessels, 99

3

solid-liquid mass transfer in a non-newtonian liquid fluidized bed. 131

Foams

axial dispersion in liquid flow through packed reticulated metallic foams and fixed beds of different structures, 63

Fouling

optimisation of intermittently operated microfiltration processes, 73

B-Galactosidase

studies on modelling and simulation of lactose hydrolysis by free and immobilized β-galactosidase from Asperaillus niger, 201

GAPDH

modelling of batch fermentation of a recombinant Escherichia coli producing glyceraldehyde-3-phosphate dehydrogenase on a complex selective medium, 335

a capacitance probe to characterize gas bubbles in stirred tank reactors, 1

Gas-liquid parameters

measurement of gas-liquid parameters in a mechanically agitated contactor, 121

Heat transfer

comment on studies on the heat transfer in slurry bubble columns, 49

reply to "Comment on studies on the heat transfer in slurry bubble columns", 51

Inactivation

inactivation of *Leuconostoc dextranicum* with carbon dioxide under pressure, 229

Kinematic viscosities

kinematic viscosities of binary mixtures of 1,2-ethanediol and 2-methoxyethanol at different temperatures, 41

Lactose hydrolysis

studies on modelling and simulation of lactose hydrolysis by free and immobilized β -galactosidase from Aspergillus niger, 201

Laminar flow

catalytic afterburners with not fully developed flow: modelling and experimental performances, 79

Leuconostoc dextranicum

inactivation of *Leuconostoc dextranicum* with carbon dioxide under pressure, 229

Liquid density

the prediction of pure component properties in the subcritical range using an equation of state, 93

Liquid flow

axial dispersion in liquid flow through packed reticulated metallic foams and fixed beds of different structures, 63

Liquid heat capacity

on the dependence of liquid heat capacity on temperature and molecular structure, $31\,$

Mass transfer

film model for mass transfer in non-ideal multicomponent fluid mixtures, 19

developing mass transfer for annular swirling decaying flow induced by means of a tangential inlet, 137 Mass-transfer coefficient.

measurement of gas-liquid parameters in a mechanically agitated contactor, 121

Maxwell-Stefan model

film model for mass transfer in non-ideal multicomponent fluid mixtures, 19

2-Methoxyethanol

kinematic viscosities of binary mixtures of 1,2-ethanediol and 2-methoxyethanol at different temperatures, 41

Metzner-Otto coefficient power consumption of screw and helical ribbon agitators in highly viscous pseudoplastic fluids, 9

Microfiltration

optimisation of intermittently operated microfiltration processes, 73

Micro-organisms

inactivation of *Leuconostoc dextranicum* with carbon dioxide under pressure, 229

Mixins

power consumption and mixing time for newtonian and non-newtonian liquids mixing in a ribbon mixer, 13 Modelling

catalytic afterburners with not fully developed flow: modelling and experimental performances, 79 modelling of the adsorption of Cephalosporin C on modified resins in a stirred tank, 371

Modified resins: stirred tank reactors

modelling of the adsorption of Cephalosporin C on modified resins in a stirred tank, 371

Molecular structure

on the dependence of liquid heat capacity on temperature and molecular structure, $31\,$

Newtonian liquids

power consumption and mixing time for newtonian and non-newtonian liquids mixing in a ribbon mixer, 13 Non-ideal fluid mixtures

film model for mass transfer in non-ideal multicomponent fluid mixtures, 19

Non-newtonian liquids

power consumption and mixing time for newtonian and non-newtonian liquids mixing in a ribbon mixer, 13 solid-liquid mass transfer in a non-newtonian liquid fluidized bed, 131

Optimization

choice of control variable for optimization of fed-batch fermentation, 359

optimisation of intermittently operated microfiltration processes, 73

Organic loading rate

influence of organic loading rate on the anaerobic treatment of high strength semisynthetic waste waters in a biological fluidized bed, 221

Oxidation

characterization and activity of cobalt oxide catalysts for total oxidation of hydrocarbons, 115

Paraffin

solubilities of carbon dioxide in normal paraffins, 55 Pollutants

waste treatment applications of enzymes: opportunities and obstacles, 349

Pollution

characterization and activity of cobalt oxide catalysts for total oxidation of hydrocarbons, 115 Potato pulp

modelling and simulation of the enzymatic hydrolysis of potato pulp by a complex enzyme mixture, 213

Power consumption

power consumption of screw and helical ribbon agitators in highly viscous pseudoplastic fluids, 9

power consumption and mixing time for newtonian and non-newtonian liquids mixing in a ribbon mixer, 13

Pressure

slugging fluidized beds in tapered vessels, 99

Pseudo plastics

power consumption of screw and helical ribbon agitators in highly viscous pseudoplastic fluids, 9

Ribbon agitators

power consumption of screw and helical ribbon agitators in highly viscous pseudoplastic fluids, 9

power consumption and mixing time for newtonian and non-newtonian liquids mixing in a ribbon mixer, 13

Salts

production of potassium sulphate-magnesium sulphate double salt and magnesium-chloride-rich solution from seawater bitterns, 89

Semisynthetic waste

influence of organic loading rate on the anaerobic treatment of high strength semisynthetic waste waters in a biological fluidized bed, 221

Solid-liquid mass transfer

solid-liquid mass transfer in a non-newtonian liquid fluidized bed, 131

Solubility

solubilities of carbon dioxide in normal paraffins, 55 Stirred tank reactors

a capacitance probe to characterize gas bubbles in stirred tank reactors, 1

chemical reaction in batch pulsatile flow and stirred tank reactors, 107

Swirling flow

developing mass transfer for annular swirling decaying flow induced by means of a tangential inlet, 137

Tannic acid

removal of tannic acid from aqueous solutions by activated carbons, 37

Tapered vessels

slugging fluidized beds in tapered vessels, 99

Temperature

on the dependence of liquid heat capacity on temperature and molecular structure, 31

kinematic viscosities of binary mixtures of 1,2-ethanediol and 2-methoxyethanol at different temperatures, 41

Thermodynamics

film model for mass transfer in non-ideal multicomponent fluid mixtures, 19

Transfer coefficients

catalytic afterburners with not fully developed flow: modelling and experimental performances, 79

Vapour pressure

on the dependence of liquid heat capacity on temperature and molecular structure, 31

the prediction of pure component properties in the subcritical range using an equation of state, 93

Waste treatment

waste treatment applications of enzymes: opportunities and obstacles, 349

Waste water

influence of organic loading rate on the anaerobic treatment of high strength semisynthetic waste waters in a biological fluidized bed, 221